Proposal for Korean Root Zone Label Generation Rules

Publication Date:	26 March 2018
Prepared By:	Sarmad Hussain

Public Comment Proceeding	
Open Date:	25 January 2018
Close Date:	17 March 2018
Staff Report Due Date:	24 March 2018

Important Information Links

[Announcement](#)
[Public Comment Proceeding](#)
[View Comments Submitted](#)

Staff Contact:	Sarmad Hussain	**Email:**	sarmad.hussain@icann.org

Section I: General Overview and Next Steps

The Korean community has formed the Korean Generation Panel (GP), which in turn has developed a Proposal for the Korean Root Zone Label Generation Rules (LGR) ([Proposal](#) and [Proposal Documentation](#)). As per the [LGR Procedure](#), this proposal has been posted for public comments to allow those who have not participated in the Korean GP to make their views known to the GP. Korean GP will now submit the revised proposal incorporating changes to reflect the public comments. Based on these updates, ICANN org, in consultation of the Integration Panel (IP), will decide on the next steps. Due to the significance of the public comments received, the revised Korean LGR proposal may undergo another round of public comment consultation before it is considered for evaluation by the IP.

Section II: Contributors

At the time this report was prepared, a total of twelve (12) community submissions had been posted to the forum. The contributors, both individuals and organizations/groups, are listed below in chronological order by posting date with initials noted. To the extent that quotations are used in the foregoing narrative (Section III), such citations will reference the contributor's initials.

Organizations and Groups:

Name	Submitted by	Initials
Hiro Hotta	Japanese Generation Panel and Japan Registry Services Co., Ltd.	HH
Keonbum Lee	Solidarity for Hangul Culture	KL
Wang Wei	Chinese Generation Panel	WW

Individuals:

Name	Affiliation (if provided)	Initials
Laaileet		LL
Jaemin Chung, Seonghoon Kang, Shinjo Park		JC/SK/SP
Yong-hyu Ban		YB

Pak Changyu		PC
Perillamint		PL
Kang Seonghoon		KS
Yongmin Hong		YH
Chul Heo		CH

Section III: Summary of Comments

General Disclaimer: This section intends to summarize broadly and comprehensively the comments submitted to this public comment proceeding but does not address every specific position stated by each contributor. The preparer recommends that readers interested in specific aspects of any of the summarized comments, or the full context of others, refer directly to the specific contributions at the link referenced above (View Comments Submitted).

LL, a South Korean citizen, suggests that in some cases Hanja-only labels may work. However, Hangul-Hanja mixed domain are not needed. These scripts may be mixed in sentences, for example, by using Hanja to write nouns. LL questions if there is any meaningful evidence for the necessity of Hangul-Hanja mixed script domain names? LL further notes it is also not easily possible to type both Hangul and Hanja at the same time in smartphones, and the keyboard needs to be switched for this purpose. Therefore, LL suggests amendments for the section 7 of this proposal. "A label may consist of Hangul syllables only, or Hanja characters only. No Hangul syllables and Hanja characters mixed usage are allowed."

JC/SK/SP have submitted two separate comments.

In the first comment they show deep concern for allowing both Hangul and Hanja in Korean script (as opposed to Hangul only), as it will give negligible benefit to Korean community but increase potential of string confusion and increase accessibility issues. They suggest that the proposal should be withdrawn.

JC/SK/SP say that the claim in the proposal for Hanja usage is exaggerated. Korean is written in Hangul, with Hanja sometimes provided in parenthesis, to clarify any Hangul-only word with multiple meanings and this use may not be a good fit for IDN labels. Further, the example of trademarks with mixed script are several decades old, and are no longer actively used – with their registration a defensive measure. JC/SK/SP explain that the mixed use of Hangul and Hanja ono signboards is mostly for "decoration". The remaining examples of corporate registers, law books, which are atypical. Android and iOS do not provide Hanja input in Korean by default, which should not be considered an oversight due to 90% smartphone penetration. Finally, the recent article in the proposal mentioning that Hanja will be included in primary school textbooks bas since then been refuted, before the proposal was submitted.

JC/SK/SP add that in addition to very limited use, mixed-script IDNs will be harmful to Korean community due to confusion within Hanja and between Hangul and Hanja. They consider that the list included in the proposal is a "massive underestimation" and believe confusing cases may be in tens or even hundreds. They provide a potential non-exhaustive list of additional cases between Hanja and Hangul and also share concern that complex characters within

Hanja can be confusing with each other. Moreover, when a name consists of multiple Korean words, there can be multiple combinations of Hangul and Hanja for that name, resulting in requiring preventive registrations and discouraging the use of Korean IDNs.

JC/SK/SP point out additional problems. They question the use of 138 additional K portion of IICore characters beyond KS X 1001. In addition, the proposal should discuss input methods for Hanja beyond just the details for Microsoft Windows, including macOS and Linux. They also point out that Hanja input is not supported by other platforms like smart TVs and game consoles. So use of Hanja IDNs will be difficult on such devices. They conclude that presenting Hanja input only on Microsoft Windows PC is not a proof that Hanja input is universally available for all Korean speakers. It will also be difficult to reconstruct Hanja character in spoken form, if the listener has not background knowledge of Hanja. This also includes visually impaired users who use screen readers; the readers also do not have an "official" Korean braille representation for Hanja.

JC/SK/SP add that Hangul-Hanja mixed-script IDNs and IDNs with Korean Hanja will likely cause confusion to Chinese and Japanese speakers rather than helping them due to lexical and regional differences.

JC/SK/SP conclude that "the Proposal has to be withdrawn, given the technical and practical flaws. Although Hanja is used as a supplementary script in the Korean language, its usage does not simply fit into what IDNs need to encode. The Proposal misrepresents the usage of Hanja and why it should be coded into Korean IDNs. It also underestimates possible confusion between Hangul and Hanja and within Hanja, especially for Korean speakers. Mere addition of Hanja in Korean IDNs will introduce new accessibility issues, especially for visually impaired users. We believe that the benefit of using Hanja in Korean IDNs is much lower than the harm caused by it."

In the second comment, JC/SK/SP note that the reference [222] in the Proposal is mistranslated as "Korea Education Research" and actually means "Classical Chinese Education Research." They also point out some additional inconsistencies in references which should be addressed. It is also noted that the confusion between Hanja and Hangul should be characterized as "many" and not "just a few".

YB says that allowing Hangul and Hanja may allow homograph attacks, which is not addressed by the proposal, listing a source for additional data. In addition, Hangul-Hanja mixture causes combination problem, for example, a three-word composed domain name yields 2^3 or 8 domain name variations. Thirdly, Hangul-Hanja mixed usage is quite out of date and overexaggerated.

HH says that after a tough coordination process, Chinese, Japanese and Korean (CJK) Generation Panels (GPs) have agreed with a definition of variants for the common Han script (Kanji in Japanese and Hanja in Korean). The implicit assumption all the way through their coordination was that there were no variants between Hanja and Hangul (in Korean case) and between Kanji, Katakana, and Hiragana (in Japanese case). However, they note that in the proposal Hanja-Hangul variant code point(s) are defined and, though they respect KGP's wish to define these variant code points, because it may impact the Chinese and Japanese users, these should be further investigated.

HH also shows concern about defining variant code points based on visual similarity between Hanja and Hangul characters. It is suggested that Hanja and Hangul should constitute a single Korean script, and such cases be considered as within-script variants, concluding that defining such variants within script on visual similarity is not a good idea without universally acceptable criteria.

KL writes that "KGP's K-LGR proposal distorts the fact that Hangul-only writing has been stabilized within the last 20 years and Hanja is no longer in use in Korea. The proposal misleads readers into believing that Hangul-Hanja mixed-script writing -- a legacy from before the 1990s -- is still currently the dominant form of writing the Korean language."

KL states that Appendix H of the proposal immensely exaggerates prevalence of Hanja usage among Koreans. Though 57% of Korean words have Hanja roots, writing these words without using Hanja does not hinder communication, so textbooks, newspapers, magazines and web pages are in Hangul only. Corporate registration since 2008 must be in Hangul only. Public signboards should also be in Hangul, and when they use foreign script Hangul should accompany it, as evidenced by the statistics shared.

KL summarizes that, in an attempt to promote Hanja education, the Ministry of Education of Korea announced in 2014 to implement parallel usage of Hangul and Hanja … in primary school textbooks. However, it was met with fierce backlash, and the Ministry retreated to putting Hanja in footnotes, which was eventually withdrawn in the end of December 2017 … In 2016, the Constitutional Court of Korea dismissed the claim that prohibiting the mixing of Hangul and Hanja in government documents and textbooks is unconstitutional, and declared that there is no problem with the Hangul-only policy."

So, KL agrees with KGP that use of Hanja is supplemental and only in exceptional cases. So, "Mixing Hangul and Hanja in top-level domains (TLD) fails to reflect the reality of Korea."

KL also explains the original of Hanja use and why it is not used anymore. It is considered one of the "foreign scripts" and Koreans may be more exposed to Latin alphabet. Hanja classes in primary and secondary schools are optional.

KL opines that Japan is the only country which mixes scripts in daily life and IDNs. Arguing that signboards also have Latin script and that Latin is used much more than Hanja, KL asks, "If Hanja and Hangul were allowed to be mixed in TLDs, why not mix Hangul and the Latin alphabet?"

WW notes that Korean GP's variant mapping for Hanja are finalized after coordination with Chinese GP. However, Chinese GP is still finalizing these variant sets, based on feedback from the Integration Panel. To ensure consistency of analysis it may be prudent for the CJK GPs to release their proposals together.

WW also notes that Hanja-Hangul variant mapping by Korean GP based on visual similarity will impact the Chinese domain names negatively. Thus, further coordination should be carried out between CJK to reach a consensus.

PC supports the use of Hanja for Korean domain names, suggesting that internet users in Korea are more familiar with Hangul and Hanja than English alphabet and Arabic numbers.

PL does not agree with the claim that 'Internet users in Republic of Korea are more familiar with Hangul and Hanja than English alphabet and Arabic numbers', saying that modern Korean texts do not contain Hanja and its education in public schools is optional but English education is mandatory. Also, Korean numeric notation uses Arabic numerals today, and not Chinese numerals.

KS also adds that Arabic numbers are more prevalent than Hanja, evidenced by their use on Google Street view, e.g., around Seoul Station.

YH makes specific comments: Pusan University was established in 1946. "Considering that under Korea under Japanese rules everything was Japanese" it is not an appropriate example; Samsung does not use the logo given in Appendix A, Fig. 2.2. based on the link shared; Most of the trademarks in Appendix B are not in use – and do not use Hanja in their logo; Corporate Register rules from 2014 states "Corporate Name, Corporate's purpose, foreigner's name, foreign country address, foreign corporate's business office's headquarter location must be registered in Hangul etc.;

YH notes that Appendix H may include older references for statistics on Hanja usage, which are not relevant today, and the plan given in Appendix H.6.2 from Ministry of Education for Korean has been repealed, with decreasing use of Hanja textbooks in schools; declining Hanja use is also shown by 2014 Gallup Korea's research.

CH says that the Korean LGR proposal is important for use of the internet.

Section IV: Analysis of Comments

General Disclaimer: This section intends to provide an analysis and evaluation of the comments submitted along with explanations regarding the basis for any recommendations provided within the analysis.

These comments are being submitted to the Korean Generation Panel for their consideration and incorporation (as needed) in the Korean LGR proposal for the root zone.